

SEQUENCE LISTING

<110> Blatt, Lawrence M.

<120> SYNTHETIC CHEMOKINE RECEPTOR LIGANDS AND
METHODS OF USE THEREOF

<130> INTM-033WO

<140> Unassigned

<141>

<150> 60/471,404

<151> 2003-05-16

<160> 20

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 77

<212> PRT

<213> Artificial Sequence

<220>

<223> consensus IP-10 sequence

<400> 1

Val	Pro	Leu	Ser	Arg	Thr	Gly	Arg	Cys	Thr	Cys	Ile	Ser	Ile	Ser	Asn
1				5					10					15	
Gln	Pro	Val	Asn	Pro	Arg	Ser	Leu	Glu	Lys	Leu	Glu	Ile	Ile	Pro	Pro
			20					25					30		
Ser	Gln	Phe	Cys	Pro	Lys	Ile	Glu	Ile	Ile	Ala	Thr	Leu	Lys	Lys	Asn
		35					40					45			
Gly	Glu	Gln	Arg	Cys	Leu	Asn	Pro	Glu	Ser	Lys	Ala	Ile	Lys	Asn	Leu
	50					55					60				
Ile	Lys	Lys	Val	Ser	Arg	Glu	Met	Ser	Lys	Lys	Ser	Pro			
65					70					75					

<210> 2

<211> 74

<212> PRT

<213> Artificial Sequence

<220>

<223> consensus I-TAC sequence

<400> 2

Phe	Pro	Met	Phe	Arg	Arg	Gly	Arg	Cys	Leu	Cys	Ile	Ser	Pro	Gly	Val
1				5					10					15	
Lys	Ala	Val	Lys	Val	Ala	Ser	Leu	Glu	Lys	Leu	Ser	Ile	Met	Tyr	Pro
			20					25					30		
Ser	Asn	Asn	Cys	Asp	Lys	Ile	Glu	Ile	Ile	Ala	Thr	Leu	Lys	Lys	Asn
		35					40					45			
Gly	Gly	Gln	Arg	Cys	Leu	Asn	Pro	Lys	Ser	Lys	Gln	Ala	Lys	Leu	Leu
	50					55					60				
Ile	Lys	Lys	Val	Glu	Arg	Lys	Lys	Asn	Phe						
65					70										

<210> 3

<211> 104
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> consensus Mig sequence

<400> 3
 Thr Pro Val Val Arg Lys Gly Arg Cys Ser Cys Ile Ser Thr Asn Gln
 1 5 10 15
 Gly Thr Val His Leu Gln Ser Leu Glu Lys Leu Lys Ile Phe Ala Pro
 20 25 30
 Ser Pro Ser Cys Glu Lys Ile Glu Ile Ile Ala Thr Leu Lys Lys Asn
 35 40 45
 Gly Val Gln Arg Cys Leu Asn Pro Asp Ser Lys Asp Val Lys Glu Leu
 50 55 60
 Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys Lys Lys Gln Lys Asn
 65 70 75 80
 Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys Val Arg Lys Val Gln
 85 90 95
 Arg Ser Arg Gln Lys Lys Thr Thr
 100

<210> 4
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> epitope tag

<400> 4
 Cys Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
 1 5 10

<210> 5
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> epitope tag

<400> 5
 Asp Tyr Lys Asp Asp Asp Asp Lys
 1 5

<210> 6
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> epitope tag

<400> 6
 Cys Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 1 5 10

<210> 7
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> protease cleavage site

<400> 7
Asp Asp Asp Asp Lys
1 5

<210> 8
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> protease cleavage site

<400> 8
Ile Glu Gly Arg
1

<210> 9
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> protease cleavage site

<400> 9
Leu Val Pro Arg Gly Ser
1 5

<210> 10
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> protease cleavage site

<400> 10
His Pro Phe His Leu Val Ile His
1 5

<210> 11
<211> 104
<212> PRT
<213> Artificial Sequence

<220>
<223> Majority Sequence

<221> VARIANT

<222> 1, 3, 4, 6, 10, 14, 15, 16, 17, 18, 20, 21, 22, 28, 30, 31,
 34, 35, 37, 50, 57, 60, 61, 63, 68, 69, 70, 71, 72, 73,
 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87,
 88, 89, 90, 91, 92, 93, 94, 96, 98, 99, 100, 103, 104
 <223> Xaa = Any Amino Acid

<400> 11

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Xaa Pro Xaa Xaa Arg Xaa Gly Arg Cys Xaa Cys Ile Ser Xaa Xaa Xaa
 1           5           10           15
Xaa Xaa Val Xaa Xaa Xaa Ser Leu Glu Lys Leu Xaa Ile Xaa Xaa Pro
          20           25           30
Ser Xaa Xaa Cys Xaa Lys Ile Glu Ile Ile Ala Thr Leu Lys Lys Asn
          35           40           45
Gly Xaa Gln Arg Cys Leu Asn Pro Xaa Ser Lys Xaa Xaa Lys Xaa Leu
 50           55           60
Ile Lys Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65           70           75           80
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val Xaa
          85           90           95
Arg Xaa Xaa Xaa Lys Lys Xaa Xaa
          100

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<210> 12

<211> 98

<212> PRT

<213> Homo sapien

<400> 12

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Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu
 1           5           10           15
Ser Gly Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Thr Cys
          20           25           30
Ile Ser Ile Ser Asn Gln Pro Val Asn Pro Arg Ser Leu Glu Lys Leu
          35           40           45
Glu Ile Ile Pro Ala Ser Gln Phe Cys Pro Arg Val Glu Ile Ile Ala
 50           55           60
Thr Met Lys Lys Lys Gly Glu Lys Arg Cys Leu Asn Pro Glu Ser Lys
65           70           75           80
Ala Ile Lys Asn Leu Leu Lys Ala Val Ser Lys Glu Met Ser Lys Arg
          85           90           95
Ser Pro

```

<210> 13

<211> 94

<212> PRT

<213> Homo sapien

<400> 13

```

Met Ser Val Lys Gly Met Ala Ile Ala Leu Ala Val Ile Leu Cys Ala
 1           5           10           15
Thr Val Val Gln Gly Phe Pro Met Phe Lys Arg Gly Arg Cys Leu Cys
          20           25           30
Ile Gly Pro Gly Val Lys Ala Val Lys Val Ala Asp Ile Glu Lys Ala
          35           40           45
Ser Ile Met Tyr Pro Ser Asn Asn Cys Asp Lys Ile Glu Val Ile Ile
 50           55           60
Thr Leu Lys Glu Asn Lys Gly Gln Arg Cys Leu Asn Pro Lys Ser Lys
65           70           75           80
Gln Ala Arg Leu Ile Ile Lys Lys Val Glu Arg Lys Asn Phe

```

85

90

<210> 14
 <211> 125
 <212> PRT
 <213> homo sapien

<400> 14
 Met Lys Lys Ser Gly Val Leu Phe Leu Leu Gly Ile Ile Leu Leu Val
 1 5 10 15
 Leu Ile Gly Val Gln Gly Thr Pro Val Val Arg Lys Gly Arg Cys Ser
 20 25 30
 Cys Ile Ser Thr Asn Gln Gly Thr Ile His Leu Gln Ser Leu Lys Asp
 35 40 45
 Leu Lys Gln Phe Ala Pro Ser Pro Ser Cys Glu Lys Ile Glu Ile Ile
 50 55 60
 Ala Thr Leu Lys Asn Gly Val Gln Thr Cys Leu Asn Pro Asp Ser Ala
 65 70 75 80
 Asp Val Lys Glu Leu Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys
 85 90 95
 Lys Lys Gln Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys
 100 105 110
 Val Arg Lys Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr
 115 120 125

<210> 15
 <211> 98
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> hybrid CXCR3 ligand

<400> 15
 Met Lys Lys Ser Gly Val Leu Phe Leu Leu Gly Ile Ile Leu Leu Val
 1 5 10 15
 Leu Ile Gly Val Gln Gly Phe Pro Met Phe Lys Arg Gly Arg Cys Leu
 20 25 30
 Cys Ile Gly Pro Gly Val Lys Pro Val Asn Pro Arg Ser Leu Glu Lys
 35 40 45
 Leu Glu Ile Ile Pro Ala Ser Gln Phe Cys Pro Arg Ile Glu Ile Ile
 50 55 60
 Ala Thr Leu Lys Asn Gly Val Gln Thr Cys Leu Asn Pro Asp Ser Lys
 65 70 75 80
 Gln Ala Arg Leu Ile Ile Lys Lys Val Ser Lys Glu Met Ser Lys Arg
 85 90 95
 Ser Pro

<210> 16
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> hybrid CXCR3 ligand

<400> 16
 Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu

```

1           5           10           15
Ser Gly Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Leu Cys
20           25           30
Ile Gly Pro Gly Val Lys Ala Val Lys Val Ala Asp Ile Glu Lys Ala
35           40           45
Ser Ile Met Tyr Pro Ser Asn Asn Cys Asp Lys Ile Glu Ile Ile Ala
50           55           60
Thr Leu Lys Asn Gly Val Gln Thr Cys Leu Asn Pro Asp Ser Ala Asp
65           70           75           80
Val Lys Glu Leu Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys Lys
85           90           95
Lys Gln Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys Val
100           105           110
Arg Lys Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr
115           120

```

<210> 17
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> hybrid CXCR3 ligand

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<400> 17
Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Cys Ala
1           5           10           15
Thr Val Val Gln Gly Phe Pro Met Phe Lys Arg Gly Arg Cys Leu Cys
20           25           30
Ile Gly Pro Gly Val Lys Ala Val Lys Val Ala Asp Ile Glu Lys Ala
35           40           45
Ser Ile Met Tyr Pro Ser Asn Asn Cys Asp Lys Ile Glu Val Ile Ile
50           55           60
Thr Leu Lys Glu Asn Lys Gly Gln Arg Cys Leu Asn Pro Lys Ser Ala
65           70           75           80
Asp Val Lys Glu Leu Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys
85           90           95
Lys Lys Gln Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys
100           105           110
Val Arg Lys Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr
115           120           125

```

<210> 18
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> hybrid CXCR3 ligand

```

<400> 18
Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu
1           5           10           15
Ser Gly Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Thr Cys
20           25           30
Ile Ser Ile Ser Asn Gln Ala Val Lys Val Ala Asp Ile Glu Lys Ala
35           40           45
Ser Ile Met Tyr Pro Ser Asn Asn Cys Asp Lys Ile Glu Val Ile Ile
50           55           60
Thr Leu Lys Glu Asn Lys Gly Gln Arg Cys Leu Asn Pro Lys Ser Lys

```

```

65          70          75          80
Gln Ala Arg Leu Ile Ile Lys Lys Glu Lys Gln Val Ser Gln Lys Lys
      85          90          95
Lys Gln Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys Val
      100          105          110
Arg Lys Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr
      115          120

```

<210> 19
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> hybrid CXCR3 ligand

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<400> 19
Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu
1          5          10          15
Ser Gly Ile Gln Gly Phe Pro Met Phe Lys Arg Gly Arg Cys Ser Cys
      20          25          30
Ile Ser Thr Asn Gln Gly Thr Ile His Leu Gln Ser Leu Lys Asp Leu
      35          40          45
Glu Ile Ile Pro Ala Ser Gln Phe Cys Pro Arg Ile Glu Val Ile Ile
      50          55          60
Thr Leu Lys Glu Asn Lys Gly Gln Arg Cys Leu Asn Pro Lys Ser Lys
      65          70          75          80
Gln Ala Arg Leu Ile Ile Lys Lys Glu Lys Gln Val Ser Gln Lys Lys
      85          90          95
Lys Gln Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys Val
      100          105          110
Arg Lys Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr
      115          120

```

<210> 20
 <211> 98
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> hybrid CXCR3 ligand ;

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<400> 20
Met Ser Val Lys Gly Met Ala Ile Ala Leu Ala Val Ile Leu Cys Ala
1          5          10          15
Thr Val Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Thr Cys
      20          25          30
Ile Ser Ile Ser Asn Gln Thr Ile His Leu Gln Ser Leu Lys Asp Leu
      35          40          45
Lys Gln Phe Ala Pro Ser Pro Ser Cys Glu Lys Val Glu Ile Ile Ala
      50          55          60
Thr Met Lys Lys Lys Gly Glu Lys Arg Cys Leu Asn Pro Glu Ser Lys
      65          70          75          80
Gln Ala Arg Leu Ile Ile Lys Lys Val Ser Lys Glu Met Ser Lys Arg
      85          90          95
Ser Pro

```